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Motivated Learners: How do they Use their Self-regulated Learning Strategies?

Faizah Eliza Abdul Talib[1], Ezathul Zerafena Mohd Ris[2], Surianor Kamaralzaman[3], Yuhana Mohd Yusof[4], Hazalina Hashim[5], Ahmad Ramzi Mohamad Zubir[6], Noor Hanim Rahmat[7]

[1,2]Centre of Foundation Studies, University Teknologi MARA, Cawangan Selangor, Kampus Dengkil, [3]Faculty of Business Management, Universiti Teknologi MARA Cawangan Selangor, Kampus Puncak Alam, [4]Centre for English Language and Foundation Education, The University of Nottingham Malaysia, Semenyih, [5]Faculty Technology and Applied Science, Open University Malaysia, Kelana Jaya, [6]Planetmahir Sdn Bhd, World Business Angels Foundation, Malaysia, [7]Akademi Pengajian Bahasa, Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang

Email: eliza210@uitm.edu.my, surianor@uitm.edu.my, Yuhana.Yusof@nottingham.edu.my, hazalina@oum.edu.my, ramzi@planetmahir.com, noorh763@uitm.edu.my

Corresponding Author's Email: ezathul7592@uitm.edu.my

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Abstract

The current trend of education has exposed learners to various ways of acquiring knowledge. Learners are not limited to 'chalk and talk' but they are encouraged to explore different methods of learning on their own. To be able to be independent in their learning, the role of motivation is crucial to make them successful learners. Hence, this study is conducted to analyse the relationship between motivation and self-regulated learning (SRL) among undergraduates in a Malaysian public university. The study used a quantitative approach to explore whether the 3 motivational variables namely self-efficacy, intrinsic motivation, and test anxiety influence students' self-regulated learning. The instrument of this quantitative study is adapted from Pintrich & De Groot (1990). The survey consists of three sections namely, Demographic Profiles, Motivational Beliefs and Self-Regulated Learning Strategies. Demographic Profiles consist of 3 items while Motivational Beliefs and Self- Regulated Learning Strategies have 22 items respectively. A total of 44 items on motivational beliefs and self-regulated learning strategies are used for this study with a 5 Likert Scale ranging from Never (1) to Always (5). A convenient sampling was used whereby 102 undergraduate students from the Faculty of Business and Management had been chosen to complete the

survey. The survey was administered online using Google Form. Correlation analysis shows that there is a high significant association between motivational beliefs and self-regulated learning strategies (r=.669**) and (p=.000). Generally, the findings revealed that there is a strong positive relationship between motivational beliefs and self-regulated learning strategies. The study suggests a thought-provoking implication for educators to encourage and facilitate learners to be autonomous in their learning process.
Keywords: Self-regulated Learning, Self-Regulated Strategies, Motivation, Academic Performance

Introduction

Background of Study

Motivation and self-regulated learning (SRL) are key areas of research in educational psychology and have a profound impact on students' academic achievement and success. Understanding the factors that drive and sustain motivation, as well as the strategies learners employ to regulate their learning, has been a subject of extensive investigation. Various theories and empirical studies have been explored to shed light on the complex relationship between motivation and self-regulated learning. Evidence indicates that students who practice self-regulated learning outperform those who do not engage in SRL (Dent & Koenka, 2016; Hattie & Donoghue, 2016, as cited in Ahmed, 2017). Zimmerman (2000) defines self-regulated learning as "the self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals". According to Aishah and Hadwin (2021), self-regulated learners are characterized as having goal-oriented approaches to academic tasks, being metacognitive by utilizing inner thoughts and self-awareness to guide and adapt strategies during learning, and being motivated and strategic in their approach.

In the Malaysian context, several studies on SRL have been done to explore the relationship between motivation and SRL. Azlina (2007) revealed that SRL strongly predicts the academic achievement of Malaysian undergraduates. In a study conducted by Ng et al (2005) in six randomly chosen smart schools in Malaysia, it was found that both the integration of information technology (IT) and motivational beliefs make similar contributions to SRL. Furthermore, Lillian et al (2021) yielded crucial findings in their research, demonstrating that three out of four domains of self-regulated learning—specifically cognitive engagement, resource management, and motivational beliefs—had a positive impact on students' perception of their learning performance. Therefore, it is crucial for the current study to explore and gain deeper understanding of how motivation influences learners' engagement, persistence, and performance, and how self-regulatory skills contribute to their ability to monitor, control, and adapt their learning strategies leading to improved educational experiences and academic achievements.

Statement of Problem

SRL includes the cognitive, metacognitive, behavioral, motivational, and emotional/affective aspects of learning. Studying motivated learners and their utilization of self-regulated learning strategies is important for several reasons. Reviewing the literature about self-regulated learning strategies, studies have indicated significant effects on academic achievement enhancing academic success, conceptual understanding, and motivation.

Yeo-eun et al (2020) explore the distinction between different aspects of SRL in college students and how they relate to motivational antecedents and behavioural outcomes. With

a sample size of 273 participants, the findings have suggested that the reported use of regulatory strategies related to cognition, motivation, behaviour, and context are empirically distinct factors. Additionally, the study revealed that the regulatory strategies associated with each aspect of SRL (cognition, motivation, behaviour, and context) were linked to different motivational antecedents and behavioural outcomes. Overall, this study contributes to the understanding of SRL by highlighting the interconnectedness of its different dimensions while also acknowledging their unique contributions to motivation and behaviour in the learning process.

The study conducted by Zheng et al (2020) explores how students use SRL strategies in different phases of learning. The participants consisted of 26 first and second-year medical students. The findings revealed that students frequently used SRL strategies during the planning and reflection stages but less frequently during the actual learning or monitoring phase. This indicates a potential gap in students' ability to effectively monitor their own learning progress. Medical students still require guidance in effectively monitoring their own learning and applying appropriate strategies during the learning process. Without these self-regulation skills, students may struggle to comprehend and connect ideas during pre-class learning, leading to ineffective learning outcomes during in-class activities.

Foerst et al (2017) investigate whether there are discrepancies between students' knowledge about SRL and their actual application of SRL strategies in relevant learning situations. A sample of 408 psychology and economic sciences students were involved in the survey. The results revealed that although students demonstrated a relatively advanced understanding of SRL strategies, they did not effectively implement this knowledge into their learning practices. The study suggests the need for interventions and measures to help students bridge the gap between their knowledge and application of SRL strategies, aiming to enhance academic performance and overall well-being. The study sheds light on the importance of aligning students' knowledge and action in SRL and suggests potential avenues for intervention to facilitate students' SRL and optimize their academic experiences.

Similarly, Mejeh & Held (2022) investigate how vocational students situationally regulate their learning process and whether there are dispositional changes in their SRL. The study suggests that when designing approaches to promote SRL, all relevant aspects of SRL, including cognitive, motivational, and emotional factors, should be considered. The study highlights the importance of SRL in vocational education and training, as it provides a foundation for building sustainable knowledge and prepares future employees. However, further research is needed to gain a deeper understanding of how vocational students regulate their learning process and to explore the potential for dispositional changes in SRL.

Consequently, in the field of education, understanding how students engage in SRL strategies is crucial for fostering academic success and personal growth. Self-regulated learners actively participate in their own learning process by setting goals, monitoring their progress, and employing strategies to enhance their learning experience. However, despite the importance of SRL, there remains a knowledge gap regarding how motivated learners effectively utilize their SRL strategies. Thus, this paper will investigate the learners and their utilization of SRL strategies. By understanding how learners effectively use SRL strategies, educators can better support students in becoming self-directed, lifelong learners who are prepared for success in both their academic and personal lives.

Objective of the Study and Research Questions

This study is done to explore perception of learners on their use of learning strategies. Specifically, this study is done to answer the following questions;

- How do learners perceive their motivational beliefs in learning?
- How do learners perceive their self-regulated learning strategies in learning?
- Is there a relationship between motivational beliefs and self-regulate learning strategies?

Literature Review

Motivation to learn

Motivation is a complex psychological phenomenon in which individuals' personal beliefs and perceptions shape their choices, level of effort, and ability to persevere. It represents an inherent drive within humans that can instigate, guide, and structure their actions. It is essential to provide students with a clear understanding of their starting point, the learning process itself, and the desired outcomes as they embark on their educational journey.

Motivation enables students to create conditions or a process that direct them to carry out learning activities. The success of the learning activities carried out by the students is determined by how precise the motivation the students get. According to the study conducted by Adetya Dewi Wardani, Imam Gunawan, Desi Eri Kusumaningrum, Djum Djum Benty et al (2020), motivation to learn serves not only as the driving force that propels students towards learning but also as a guiding factor that directs their activities towards specific learning goals. Motivation plays an important role in initiating and sustaining SRL (Boekaerts, 2010; Pinrich, 1999; Zimmerman, 2011 as cited in Ahmed, 2017). Hence, it is crucial to understand the significance of motivational processes in Self-Regulated Learners (SRL) as emphasized by (Zimmerman & Schunk, 2008).

Self-Regulated Learners

SRL refers to the ability of individuals to set goals, monitor their learning progress, and employ strategies to enhance their learning. Numerous studies have investigated self-regulated learners and their characteristics, strategies, and outcomes. Here are some key findings from past studies on self-regulated learners.

Bransford (2000) said that self-regulated learners often employ metacognitive strategies. These strategies help learners develop a deeper understanding of the material and regulate their learning effectively. Apart from that, self-efficacy, or an individual's belief in their ability to succeed, plays a significant role in SRL. Learners with higher self-efficacy tend to set more challenging goals, persist in the face of difficulties, and employ effective learning strategies (Usher & Pajares, 2008). Mukhtar et al (2018) claimed that intrinsic motivation, driven by personal interest and enjoyment, is linked to higher levels of self-regulation.

Chiu-Lin Lai and Gwo-Jen Hwang (2021) identify various strategies such as goal setting, planning and organization, self-monitoring, self-evaluation, and the use of effective learning strategies like elaboration, summarization, and self-explanation enhance SRL. Factors connected to the learning environment and instructional practices, such as autonomy, social support, and the availability of resources and feedback impact learners' ability to regulate their learning effectively (Pintrich, 2000). As mentioned by Tuero et al (2022) in their study, self-regulated learners tend to perform better academically, exhibit deeper understanding, and have higher retention of learned material. Self-regulated learners take responsibility for

their own learning and continuously seek to acquire new knowledge and skills (Lüftenegger et al., 2012).

These findings represent a general overview of past studies on self-regulated learners. The field of self-regulated learning is dynamic, and ongoing research continues to deepen the understanding of this complex construct.

Past Studies on Motivation to Learn

Many studies have been done in various fields including health education, Mathematics, and psychology studies to investigate the motivational factors in the acquisition and development of academic performance of learners in the learning process. Motivation is a multifaceted psychological phenomenon in which individuals' personal beliefs and perceptions shape their decision-making, exertion of effort, and determination (Eccles & Wigfield, 2002; Stipek, 1996 as cited in Aishah & Hadwin, 2002). According to Aishah and Hadwin (2022), individuals' motivational beliefs and experiences result in cognitive imprints and interpretations that influence their involvement in self-regulatory processes. Two motivational variables which are self-efficacy and task values are hypothesised to facilitate and sustain learners; engagement in self-regulated learning (Pintrich, 1999; Wigfield 7 Claudia, 2008; Zimmerman, 2011 as cited in Ahmed, 2017). Self-efficacy is the assessment of one's own abilities to plan and carry out actions to achieve goals they have set for themselves. It is a well-researched motivational concept closely linked to self-regulation, which refers to the processes individuals use to monitor and control their thoughts, emotions, and behaviours in pursuit of their goals (Bandura, 1997 as cited in Ahmed, 2017). Another motivational belief in SRL is intrinsic motivation. Cook & Artino (2016), exert that cognitive evaluation theory, which is a subset of self-determination theory, intrinsic motivation can be fostered by fulfilling three fundamental psychosocial needs: autonomy (having the opportunity to control one's actions), competence (having a belief in one's capabilities), and relatedness (feeling connected to others or having a sense of affiliation). This shows the learners willingness and capabilities to self-regulate their own learning.

There have been many past studies on motivational beliefs and SRL strategies. The study by Yusuf (2011) investigated the effect of self-efficacy on learners' academic achievement with 300 undergraduate students from Universiti Kebangsaan Malaysia who had responded to the research questionnaires. In particular, the examination revealed a direct impact of self-efficacy and an indirect influence of achievement motivation and self-learning strategies on the academic achievements of the respondents. Furthermore, the analysis of both direct and indirect findings revealed that self-efficacy plays a mediating role between achievement motivation and learning strategies.

Another study done by Noraishah, Munirah, Rafidah, Siti Hamidah, Nur Najwa and Nik Murshidah (2022) also looked at how students perceive self-efficacy as one of the driving forces to regulate their own learning. The study was done with one hundred and one Halal Management diploma students in a public university in Malaysia using a quantitative survey. It was discovered that there are high motivational beliefs and high self-efficacy in learning among students of the course. The data on SRL show that most of the students can learn and be competitive to achieve their goals.

Past Studies on Self-Regulated Strategies

SRL strategies refer to the processes and techniques that individuals use to actively control and monitor their learning. These strategies play a crucial role in academic achievement and have been the subject of extensive research.

In his influential study, Zimmerman (1990) proposes a three-phase model of self-regulated learning, which includes forethought, performance control, and self-reflection. He highlighted the importance of goal setting, self-monitoring, and self-reflection in enhancing academic performance. Pintrich (2020) develops a framework called the SRL model, which emphasizes the role of motivation and metacognition in self-regulation. The model identified three phases: forethought, performance control, and self-reflection. Pintrich also explores the relationship between self-regulation and academic achievement. Boekaerts (1999) investigates the role of SRL in academic settings. Her research focused on self-regulation strategies, including goal setting, self-monitoring, self-evaluation, and self-reinforcement. She also examined the impact of motivational factors on SRL.

Schunk and Zimmerman (1997) in their study explore the impact of self-regulation techniques, such as self-instruction, self-monitoring, and self-evaluation, on students' achievement in various academic tasks. Winne and Hadwin (1998) conduct a meta-analysis of studies on self-regulated learning. They examined the relationship between self-regulation and academic achievement across different age groups and academic domains. Both studies highlighted the effectiveness of SRL strategies in improving learning outcomes.

Efklides (2011) examines the role of metacognitive processes in SRL. The study focused on metacognitive monitoring and control strategies, such as planning, monitoring, and evaluating one's learning. Efklides further explores how these strategies contribute to self-regulation and academic performance. Schunk's (2008) research focuses on SRL in children and adolescents. He investigates the developmental aspects of self-regulation and examines how SRL strategies evolve with age.

These studies and many others have contributed to the understanding of SRL strategies and their impact on academic performance. They have provided insights into the importance of goal setting, self-monitoring, metacognition, and motivation in enhancing learning outcomes.

Conceptual Framework

Figure 1 below shows the conceptual framework of the study. This study explores motivated learners' use of SRL strategies. Motivated learners have confidence and this confidence helps them to be self-regulated (Rahmat, 2021). The concept of this study is rooted from motivational beliefs and self-regulated learning strategies by (Pintrich & De Groot, 1990). Learners with motivational beliefs display (i) self-efficacy, have good (ii) intrinsic value and (iii) display low test anxiety. Next, learners with good self-regulated strategies depend on their (i) cognitive strategy use and also (ii) self-regulation.

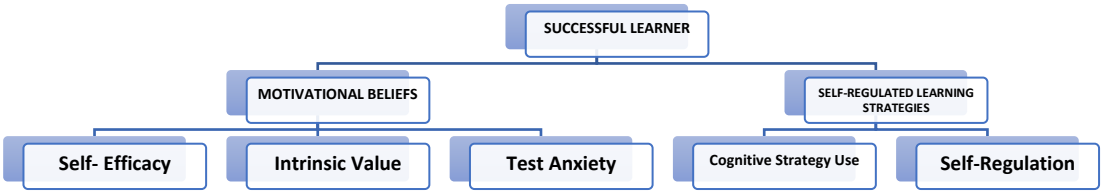

Figure 1- Conceptual framework of the Study-Motivated Learners: How do they use their self-regulated learning strategies?

Methodology

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 104 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from Pintrich & DeGroot (1990) to reveal the variables in table 1 below. The survey has 3 sections/parts. Section A has items on demographic profile. Part Two has 22 items on motivational beliefs. Part three has 22 items on self-regulated learning strategies.

Table 1
Distribution of Items in the Survey
Pintrich & De Groot (1990)

PART	STRATEGY		SCALE	No Of Items	Total Items
TWO	MOTIVATIONAL BELIEFS	A	SELF-EFFICACY	9	22
		B	INTRINSIC VALUE	9	
		C	TEST ANXIETY	4	
THREE	SELF-REGULATED LEARNING STRATEGIES	D	COGNITIVE STRATEGY USE	13	22
		E	SELF-REGULATION	9	
	TOTAL NO OF ITEMS				44

Table 2
Reliability of Survey

Reliability Statistics

Cronbach's Alpha	N of Items
.941	44

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .941, thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

Findings

Findings for Demographic Profile
Q1. Gender

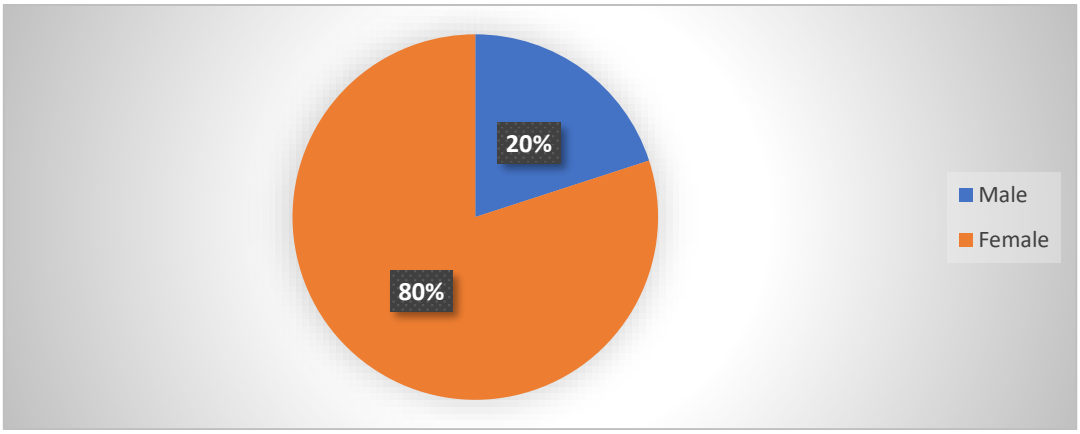

Figure 2- Percentage for Gender

Figure 2 shows the percentages of the research participants based on gender. 20% of the overall participants are male while 80% are female.

Q2 Age

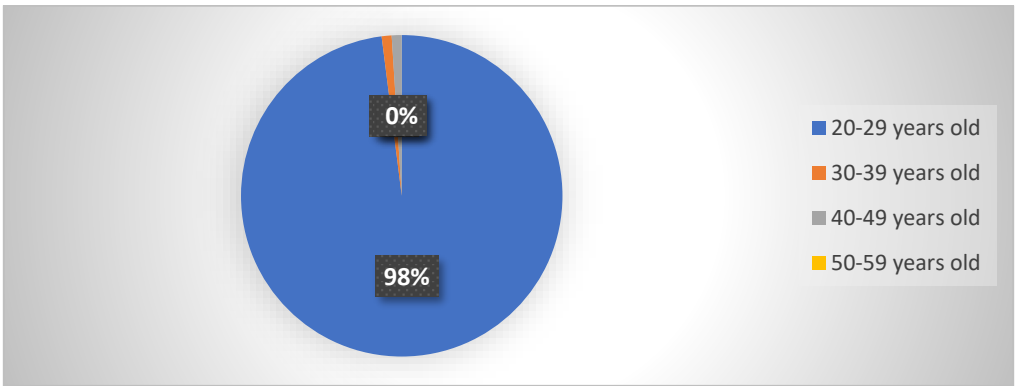

Figure 3- Percentage for Age

The percentages for the participants based on their age groups are shown in Figure 3. 98% of the participants for this research are between the ages of 20-29 years. The second age group is between 30-39 years and this group constitutes only 1% of the overall participants. The third age group is between 40-49 years and this group also constitutes 1% of the participants. Based on the information presented in figure 3, there were no participants between the age group of 50-59 years (0%).

Q3 Degree

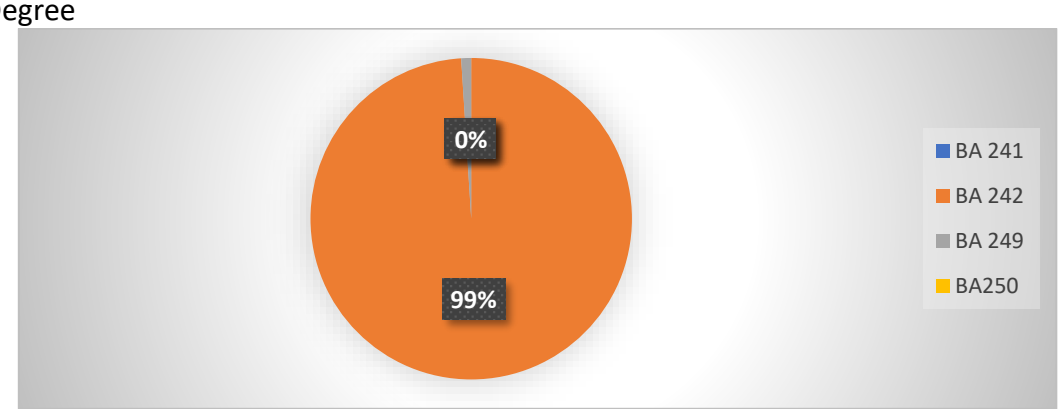

Figure 4- Percentage for Degree

Figure 4 shows the percentages of the participants based on their programs of study (Degree). The majority of the participants (99%) are from the Bachelor of Business Administration (Hons) Finance program, while only 1% of the participants belong to the Bachelor of Business Administration (Hons) Islamic Banking. There were no participants from the Bachelor of Business Administration (Hons) Insurance and the Bachelor of Business Administration (Hons) Business Economics programs, with 0% participants respectively

Findings for Motivational Beliefs

This section presents data to answer research question 1- How do learners perceive their motivational beliefs in learning? In the context of this study, motivational beliefs are measured by (a) self-efficacy, (b) intrinsic value and (c)test anxiety.

Motivational Beliefs (22 items)

(a) SELF-EFFICACY (9 items)

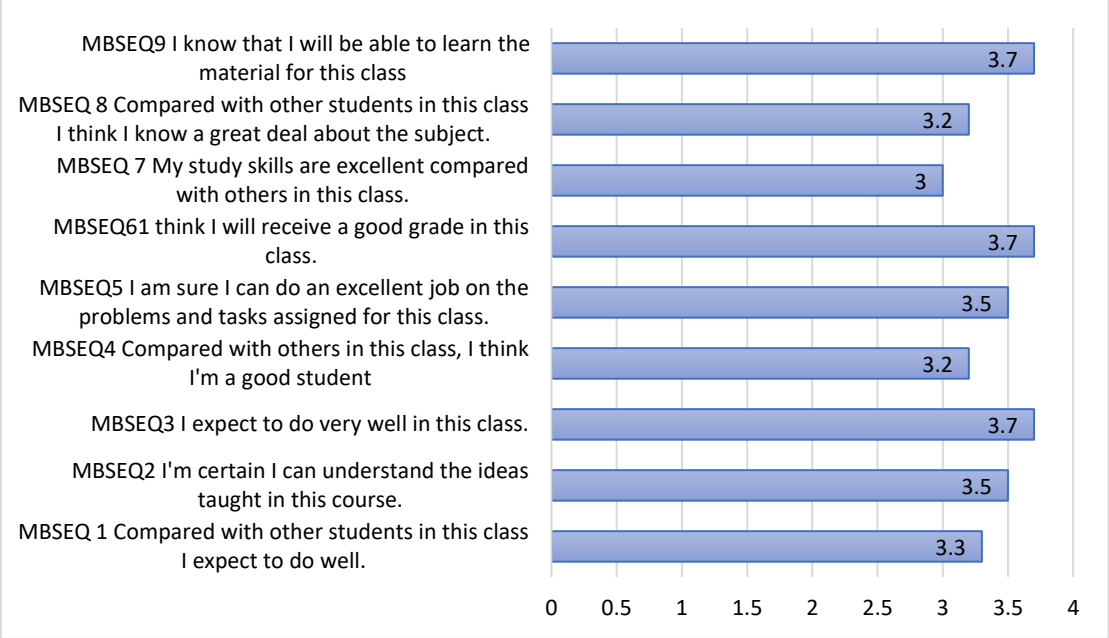

Figure 5- Mean for Self-Efficacy

Figure 5, is a list of self-efficacy items with their corresponding means. These items are related to expectations and confidence in performing well in a class. Among the items, MBSEQ3, MBSEQ6, and MBSEQ9 have the highest mean value of 3.7 - indicating that, on average, respondents strongly agreed with these three items, expressing high expectations, confidence, and self-assurance regarding their performance and learning in the class. Whereas, MBSEQ5 received the lowest mean value of 3- MBSEQ7: "My study skills are excellent compared with others in this class." This implies, on average, respondents expressed slightly lower agreement with this statement compared to the other items. The mean value of 3 suggests that respondents had a relatively neutral or moderate level of agreement with this statement.

(b) INTRINSIC VALUE (9 items)

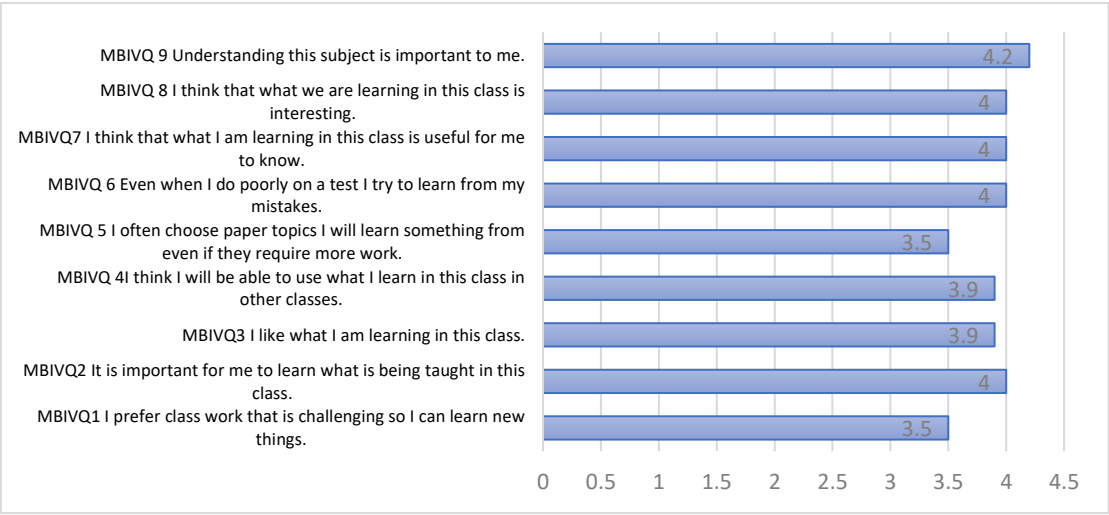

Figure 6- Mean for Intrinsic value

Figure 6 illustrates 9 items related to intrinsic value, along with their corresponding mean scores. The items are statements reflecting students' opinions or attitudes towards their classwork or learning experiences. Each item is followed by a mean score indicating the average rating given by the respondents. Among the items, the highest mean score is 4.2, which corresponds to item MBIVQ9: "Understanding this subject is important to me." This indicates that, on average, the respondents strongly agree or find it highly important to understand the subject being taught in the class. While, the lowest mean score among the items is 3.5. This mean score is associated with two items: MBIVQ1 and MBIVQ5. The mean score of 3.5 suggests that, on average, the respondents have a moderate level of agreement or preference for challenging class work and selecting paper topics that offer opportunities for learning, even if they require additional effort.

(c) Test Anxiety (4 items)

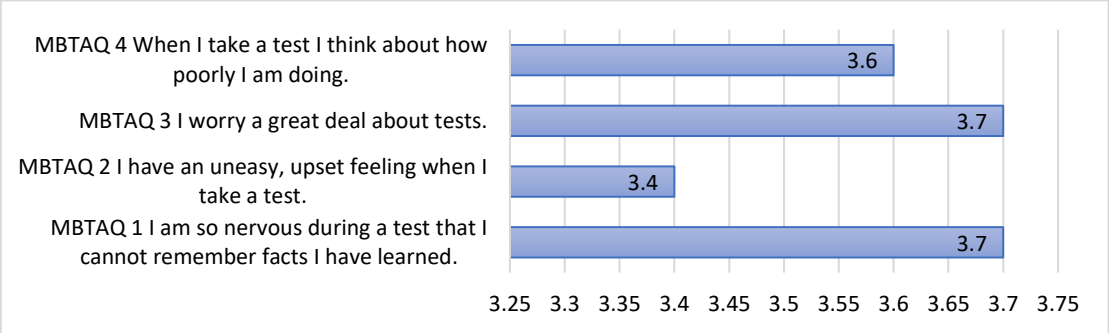

Figure 7- Mean for Test Anxiety

Figure 7 is a set of items and their corresponding mean ratings relating to test anxiety, and the mean values represent the average rating given by respondents regarding each item's statement. These four statements assess different aspects of test anxiety experienced by the respondents. The highest mean among the items is 3.7. Items MBTAQ1 and MBTAQ3 both have a mean rating of 3.7, indicating that respondents, on average, expressed a relatively high level of agreement with these statements related to test anxiety. The lowest mean among the items is 3.4. Item MBTAQ2 has a mean rating of 3.4. This suggests that, on average, respondents expressed a moderate level of agreement with this statement, indicating that they experienced some degree of uneasiness and upset feelings when taking tests.

Findings for Self-Regulated Strategies

This section 3 presents data to answer research question 3- How do learners perceive their self-regulated learning strategies in learning? In the context of this study, self-regulated learning strategies are measured by (a) cognitive strategy use, and (b) self-regulation.

Self-Regulated Learning Strategies

(a) Cognitive Strategy Use (13 items)

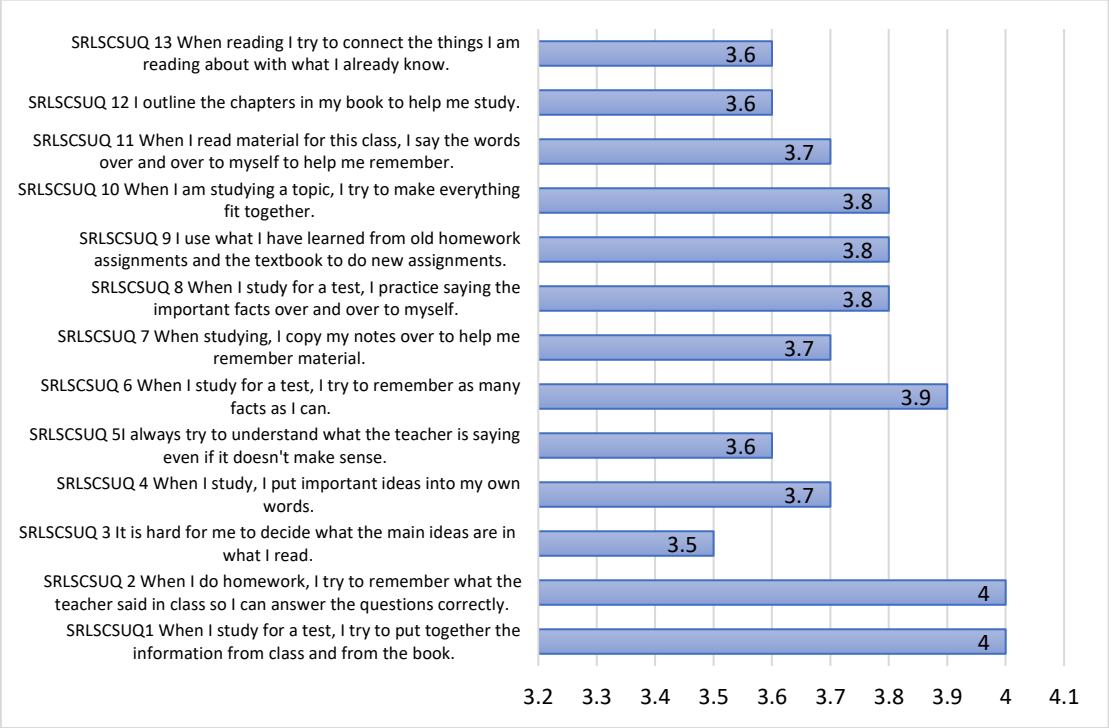

Figure 8- Mean for Cognitive Strategy Use

Figure 8 shows the mean scores for Cognitive Strategies used by the participants as part of their SRL strategies. Questions 1 and 2 receive the highest mean score of 4, and this is followed by Question 6 with a mean score of 3.9. Questions 8, 9 and 10 have a similar mean score of 3.8, while Questions 4, 7 and 11 obtain a mean score of 3.7. The mean score for Questions 5, 12 and 13 is 3.6 and Question 3 obtains the lowest mean score of 3.5

(b) SELF-REGULATION (9 items)

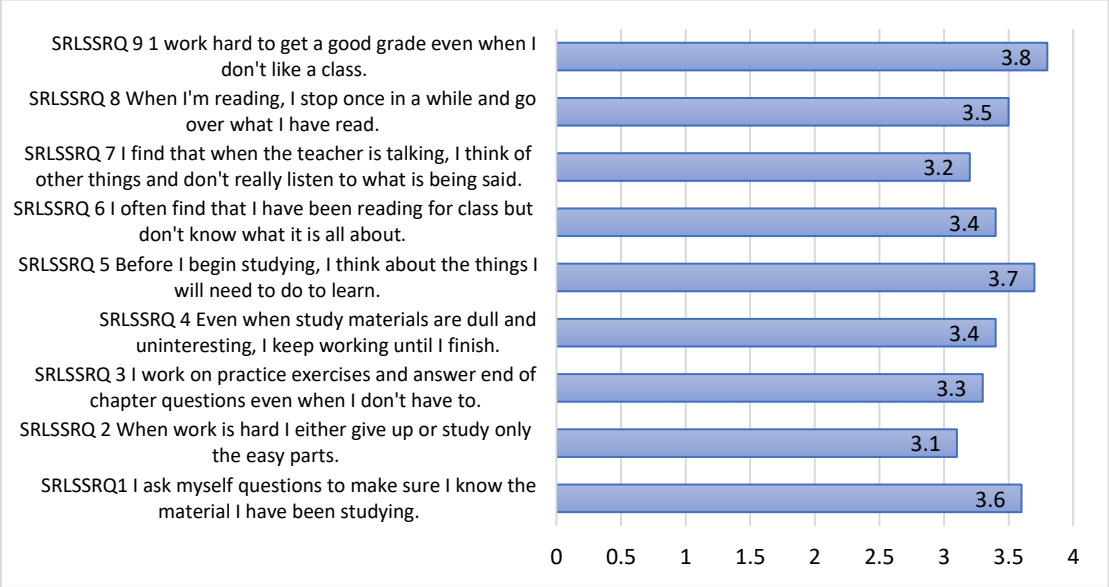

Figure 9- Mean for Self-Regulation

Figure 9 shows the mean scores for Self-Regulation practiced by the participants as part of their SRL strategies. Question 9 obtains the highest mean score of 3.8, and this is followed by Question 5 with a mean score of 3.7, and Question 1 with 3.6. Question 5 has a mean score of 3.5 while Questions 4 and 6 have a similar mean score of 3.4. Questions 3 and 7 obtain mean scores 3.3 and 3.2 respectively. The lowest mean score for this set of questions is obtained by Question 2 with a mean score of 3.1.

Findings for Relationship between Motivational Beliefs and SRL Strategies

This section 3 presents data to answer research question 3- Is there a relationship between motivational beliefs and SRL strategies. To determine if there is a significant association in the mean scores between metacognitive, effort regulation, cognitive, social and affective strategies data is analysed using SPSS for correlations. Results are presented separately in table 3, 4, 5 and 6 below.

Table 11

Correlation between Motivational Beliefs and Self-Regulated Learning Strategies

Correlations

		MOTIVATIONALBELIEFS	SELFREGULATEDLEARNING
MOTIVATIONALBELIEFS	Pearson Correlation	1	.669**
	Sig. (2-tailed)		.000
	N	104	104
SELFREGULATEDLEARNING	Pearson Correlation	.669**	1
	Sig. (2-tailed)	.000	
	N	104	104

**. Correlation is significant at the 0.01 level (2-tailed).

Table 11 shows there is an association between motivational beliefs and SRL strategies. Correlation analysis shows that there is a high significant association between motivational beliefs and SRL strategies (r=.669**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between motivational beliefs and SRL strategies.

Conclusion

Summary of Findings and Discussions

The principal objective of this study is to examine whether there is a strong positive association between motivational beliefs and self-regulated learning (SRL) strategies. Three questions concerning learners' perception on their motivational beliefs, learners' perception on their self-regulated learning strategies and the relationship between motivational beliefs and self-regulated learning strategies are fundamental in this study.

The first research question on how learners perceive their motivational beliefs in terms of self-efficacy, intrinsic value, and test anxiety, the findings show that the students perceived they have high expectations, confidence and self-assurance regarding their learning and performance in class. The significance of self-efficacy in learners' motivation and academic success was highlighted in the research carried out by Herndon & Bembenutty in 2017, as well as Ucar & Sungur in 2017 (as cited in Ilishkina et al., 2022). As for intrinsic motivation, the students find that it is highly important for them to understand the subject being taught to self-regulate their learning. Ilishkina et.al (2022), mentioned that students who are

intrinsically motivated may have greater control over motivational aspects when they engage in self-regulation of specific elements.

Another element of motivational belief, which is test anxiety, the findings show that students significantly agree that they feel nervous and worry a great deal about tests. This suggests that having this anxiety leads students to regulate their learning to perform better. This is in line with Azlina (2007) findings whereby she mentioned that the low achiever students performed better when they were slightly more worried about their examinations as this made them feel more motivated to work harder.

When examining students' perceptions of their SRL in relation to the utilization of cognitive strategies, the results demonstrated that students not only employ memorization techniques but also association techniques to integrate the information acquired in class and from additional resources. This is in line with Foong et.al (2021) study on SRL among medical students where it was found that students use associations and meaning making with content from lecturers.

The correlation analysis indicates a highly significant relationship between these two variables. Therefore, it can be concluded that there is a robust and positive relationship between motivational beliefs and SRL strategies.

(Pedagogical) Implications and Suggestions for Future Research

The findings from this study have led to a substantial implication for both educators and learners in facilitating the teaching and learning process. It is essential for learners to have, if not a high level of motivation, at least a moderate motivation to assist them to achieve better performance in their learning. As for the educators, understanding the elements of motivational beliefs would enable them to facilitate the learners to become autonomous learners. In the current educational environment, educators should let the learners become independent learners as this will make the learning process more meaningful to the learners as they become more responsible for their own learning. Guidance can be given to educators in terms of the method of teaching as well as the materials used which can contribute to the different learning strategies of SRL employed by learners.

This study comes with a few limitations. There are several recommendations for future researchers to consider. It is important to note that the findings cannot be generalized to all undergraduate learners since the sample was limited to one public university. Hence, future research should include samples from various universities to obtain more comprehensive findings that can be applicable to a broader population. Additionally, this study solely relied on survey questionnaires to collect data from the respondents, which may limit the depth of the responses. Therefore, future research should consider employing qualitative methods such as interviews to gather extensive and multidimensional data from the participants. In addition, other elements of motivational beliefs could be investigated such as extrinsic motivation, task-value and motives to gain more insights on the relationship of motivational beliefs and SRL strategies.This approach could provide deeper insights into the impact of motivation on SRL .

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